Nova Scotia
Teachers' Pension
Commission

ANNUAL REPORT
JULY 31, 1990

Table of Contents

The Commission 3

Commission Meetings and Business 5

Changes to the Pension Plan 6

The Financial Situation 7

Commission Staff 9

Acknowledgements 9

Additional Reports 9

Annual Report
Investment Committee 11

The Commission

This is the annual report of the Teachers' Pension Commission for the year August 1, 1989, to July 31, 1990. The commission is responsible for administering the Teachers' Pension Act. This duty is contained in subsection (9) of Section 3 of the Act. The same section also explains the composition of the commission: how many members it has, how they are appointed, their terms of office.

There are seven commissioners. Four are appointed by the government and three are elected by the Nova Scotia Teachers' Union. Every member serves for a three-year term and may be reappointed. In chronological order by date of appointment (the year given in brackets after each name), the members of the commission for 1989-90 were:

Mr. Arnold Sarty (1965)	Government appointee
Mr. Terrence Gallagher (1986)	Teacher representative
Mr. Cameron Sears (1987)	Teacher representative
Mr. Stephen Hogan (1987)	Teacher representative
Mr. Michael Hornby (1987)	Government appointee
Mr. Blenis Nicholson (1987)	Government appointee
Dr. Harris Miller (1988)	Government appointee

Mr. Sarty, the former treasurer of the Nova Scotia Power Commission and retired provincial Auditor General, has the distinction of being the longest serving member of the commission in its 41-year history. He will continue to build on that record. His last term expired on July 31, 1990, and he was reappointed to another three-year term.

Mr. Terrence Gallagher, formerly principal of St. Stephen's-Highland Park School in Halifax and currently principal of Oxford Street School also in Halifax, was re-elected at the 1989 NSTU Annual Council meeting to a second term which began August 1, 1989.

Mr. Cameron Sears, formerly the principal of Cusack School in Sydney, represents retired teachers. He has the distinction of being the only member of the commission ever to serve two separate terms. Elected in 1971, as a teacher representative, he served until 1974. He returned in 1987 when the commission membership was expanded to include a representative of retired teachers.

Mr. Stephen Hogan, a former mine surveyor, is a teacher in Mount Carmel School at New Waterford. His first term expired on July 31, 1990. He was re-elected by his colleagues at the 1990 NSTU Annual Council meeting to a second three-year term.

Mr. Michael Hornby, a former professional hockey player who is now a chartered accountant, is a partner in the Dartmouth office of the public accounting firm Deloitte & Touche. He was appointed to the commission in late 1987 when the membership was expanded from five members to its current seven.

Mr. Blenis Nicholson is the Deputy Minister of Education. He was first appointed to the commission in 1988, replacing Mr. Gerald McCarthy. He was elected chairman by his fellow commissioners at that time and has been subsequently re-elected to two successive annual terms. The most recent election was in August 1989.

Dr. Harris Miller was appointed to the commission in 1988 to succeed the late Dr. John Stanton. A former army officer, Dr. Miller retired in 1987 from the position of Deputy Minister of Health. He is a member of the Order of Canada.

As noted above, the commission's mandate is to administer the Teachers' Pension Act. Specifically, the commission is responsible for approving pensions, refunds, purchase applications and for making regulations. All regulations made by the commission are subject to approval by the Governor in Council.

This brief description of the commission's mandate is emphasized to indicate that there are important areas connected with the Teachers' Pension Plan for which the commission is not responsible. The commission cannot change the basic provisions of the pension plan. These are contained in the Teachers' Pension Act. The Act, like every other statute, can only be changed by the provincial Legislature. The commission is responsible for setting the contribution rate to the pension fund. This, however, is done in consultation with the President of the Nova Scotia Teachers' Union and is subject to provincial government approval. Nor is the commission responsible for the investment function. The Teachers' Pension Act in subsection (3) of Section 4 states that the Minister of Finance is the trustee of the fund. Management of the pension fund's investment portfolio is therefore carried out by officials of the Department of Finance. (For further details on this, see the section on the Investment Committee at the end of this report.)

Mr. Stephen Hogan, Commissioner (left), and Mr. Blenis Nicholson, Chairman.

Commission Meetings and Business

During 1989-90 the commission met seven times. These were meetings No. 244 to 250 inclusive. It put into pay 281 pensions and approved 318 purchase applications and 583 refunds.

A breakdown of the pensions is as follows:

Type of pension	No. of pensioners	Average dollar value
Unreduced service	145	24,366
Reduced service	30	13,542
Disability	38	18,418
Spousal	51	7,662
Orphans & dependants	17	2,351
	281	*17,983*

The purchase applications were in the following amounts and categories:

Type	Number	Total years of credit	Total purchase price
Study leave	83	104	376,447
Service outside N.S.	81	360	1,336,144
University teaching	3	7	31,983
Sick time	21	15	50,320
Maternity	130	54	215,991
	318	*540*	*2,010,885*

The 583 refunds totalled almost $1.4 million. During the year, 163 pensioners died. Of these, 3 had been receiving pensions under the old Teachers' Pension Plan which means they had been retired for at least 40 years.

In 1988, the NSTU, in its annual submission on pension matters to the Minister of Education, proposed that changes be made in the function and role of the Teachers' Pension Commission. In response to this request, the Minister asked the commission to prepare a report on what it saw as its role in the whole area of teachers' pensions. During the year 1989-90, the commission completed this report and forwarded it to the Minister of Education. Later, a copy was sent to the President of the Nova Scotia Teachers' Union. The report concluded that the commission could better fulfil its mandate to the members and beneficiaries of the Teachers' Pension Plan by operating independently from the provincial government. The report also stated that the role of the commission could be expanded subject to agreement by teachers and government regarding the future direction of the pension plan. The report did not recommend any change in trusteeship pending action to address the problem of the unfunded liability.

On May 30, 1990, Mr. Terrence Gallagher and Mr. Robert Jack, Executive Director of the commission, appeared before the Legislature's Public Accounts Committee. Mr. Al Manuel, Deputy Minister of Finance, was also present, representing the trustee. The main thrust of the committee's questions concerned the unfunded liability of the pension fund and the management of the investment function.

Changes to the Pension Plan

Changes to the pension plan can result from amendments to the Teachers' Pension Act, changes to the regulations made under the Act, or changes in the application of existing provisions of the Act and Regulations.

In June 1990, the Legislature enacted Bill No. 60 which amended Section 50 of the Teachers' Pension Act. This authorized the commission to enter into a reciprocal transfer agreement with any Canadian pension authority. Previously, reciprocal agreements were only possible with other teacher pension plans. As of the writing of this report, the commission has not entered into any reciprocal agreements under this amendment.

The only change made to the regulations in the past year was an amendment to Regulation 21. This concerned the definition of the phrase "commuted value." This expression is used in the Teachers' Pension Act to determine the value of a refund. The same phrase is also used to determine the value of an early retirement pension where the teacher has less than 20 years of service. In determining the commuted value of a pension, the commission has adopted the standards recommended by the Canadian Institute of Actuaries.

Each year, the interest rate used in the calculation of purchase prices is set equal to the rate of return earned by the pension fund in the previous fiscal year. For 1989-90, this interest rate was set at 10.27%.

In January 1990, all pensions in pay in December 1989 were increased to compensate for inflation. The indexing rules specify that indexing is calculated based on the increase in the Consumer Price Index for the 12-month period ended the previous October. The pension plan also has a provision whereby those teachers who have experienced a cumulative loss in purchasing power because of inflation will receive more than the increase in the Consumer Price Index up to a maximum of 6%. This resulted in pensions which were originally in pay prior to 1982 being increased by 6% in 1990. All other pensions, i.e., those which were put into pay in 1982 and subsequent years, were increased by 4.8%.

Dr. Harris Miller, Commissioner (left), and Mr. Cameron Sears, Commissioner.

The Financial Situation

As was stated in the commission's 1989 report, the pension fund had an unfunded liability of over $845 million as at the last actuarial valuation date (this was July 31, 1988). This unfunded liability figure is the difference between the actuarial assets of the fund ($768 million) and the estimated actuarial liabilities ($1,613 million).

As was also stated in last year's annual report, a cash flow study projected that by the year 2007 the pension fund would have to begin selling its investments in order to meet the pension payroll.

The commission is most concerned with the seriousness of this situation. It has expressed these concerns to both the Minister of Education and the President of the Nova Scotia Teachers' Union.

The Minister and the President agreed to establish a committee of officials to determine whether agreement could be reached between government and the union on a course of action to address this serious problem. The committee was composed of Mr. John Levangie, Chief Director Finance and Budgeting, Department of Education, and Mr. Ron MacPherson, Executive Assistant of the Nova Scotia Teachers' Union. Mr. Robert Jack, Executive Director of the commission, served on the committee as a resource person. The committee met over a period of almost 18 months and reviewed various options to deal with the unfunded liability and cash flow problems. As of the writing of this report, however, talks between the two parties had been terminated because no mutually agreeable solution could be found.

It must be emphasized that the answer to this problem lies with government and the NSTU. The commission, being the administrative body, can certainly generate ideas and provide technical expertise, but it does not have the mandate to determine a solution.

Mr. Arnold Sarty, Commissioner (left), and Mr. Terrence Gallagher, Commissioner.

The commission wishes to emphasize to all current contributors to the plan and current beneficiaries that this is a most serious problem. It has been left unattended for too many years. Some action has to be taken soon to stave off the coming financial crisis.

The commission urges both government and teachers to try again to devise a solution to this problem. Without a solution in the very near future, there is the very real possibility that within the lifetimes of those currently contributing, the pension fund will be unable to meet its obligations.

Mr. Robert Jack, Executive Director (left), and Mr. Michael Hornby, Commissioner.

Commission Staff

As at July 31, 1990, the commission has the following full-time members of staff:

Robert W.C. Jack, Executive Director
David W. Campbell, Co-ordinator
Dolena Hill, Chief Clerk
James Evans, Computer Services Officer
Elinor Veitch, Secretary
Adrienne McGrath, Receptionist
Dorothy Stoddard, Pension Clerk
Sharon Pitts, Refund Clerk
Dawn Mason, Data Processing Clerk

Acknowledgements

The commission also wishes to acknowledge the assistance and services provided by the following in the past year:

Dr. H.I. MacGregor, Medical Referee
Helenanne Carey, Q.C., Solicitor
William M. Mercer Limited, Consulting Actuaries
The Auditor General of Nova Scotia

Additional Reports

This annual report includes two additional documents. The annual report of the Investment Committee of the Province of Nova Scotia and the audited Financial Statements of the Teachers' Pension Fund. Neither of these documents was prepared by or is the responsibility of the Teachers' Pension Commission, although some figures in the financial statements do reflect transactions over which the commission has jurisdiction. These documents are presented here as a convenience for readers of the commission's annual report.

Province of Nova Scotia

Annual Report
Investment Committee
Teachers' Pension Fund
Year Ended March 31, 1990

Contents

I Composition of the Investment Committee 13

II Magnitude and Growth 13

III Management of the Fund 13

IV Return on Investment 14

Appendix A 15

Appendix B 16

Appendix C 16

Appendix D 17

Appendix E
Financial Statements 19

The Minister of Finance is the trustee for the Teachers' Pension Fund. Several years ago an Investment Committee was established to provide advice, through the Deputy Minister of Finance, on the investment of the Fund. The main activities of the Committee are to recommend asset mix for the Pension Fund and to monitor performance of individual managers and the Fund as a whole.

I Composition of the Investment Committee

The Investment Committee consists of representatives of the Department of Finance, which is responsible for the investment of the Fund, representatives of each major group of employees that are members of the Public Service Superannuation Plan, and the Chairperson of the Teachers' Pension Commission. In October 1990, the Department of Finance was requested and agreed to increase representation on the Investment Committee by the Teachers' Pension Commission to two people. The Committee is listed as Appendix A.

II Magnitude and Growth

During the fiscal year ended March 31, 1990, the Fund's total assets increased by $92 million (11%) to $914 million. This growth comprised $90 million investment income and the $2 million by which contributions exceeded pensions paid and administrative expenses.

The Fund's financial statements are attached as Appendix E.

Assets of the Fund at year-end were made up as follows:

	Market Value (millions)	
Money market instruments	$ 104	11%
Bonds and debentures	597	66%
Mortgages	3	—
Canadian equities	119	13%
U.S. equities	87	10%
	$ 910	*100%*

III Management of the Fund

The asset mix policy is determined by the Investment Committee. Although the relatively high bond weighting has proven to be an advantage over the last ten years, the Investment Committee made a decision to diversify the portfolio to reduce risk while maintaining or improving yield. Accordingly, in consultation with an investment counselling firm, long-term asset mix objectives were set by the Investment Committee that would increase the equity component of the portfolio. Appendix B outlines the changes in the asset mix of the portfolio over the last four years.

During the year, monthly cash flows to the Canadian equity market were continued. These monthly allocations have gradually increased the Canadian equity component as a percentage of the total investment portfolio.

Four investment management firms are contracted to manage the Canadian equity portfolio. A small portfolio of shares in regional companies is managed in-house.

The Fund also engages four investment management firms to manage the U.S. equity portfolio, which accounted for 10% of the investments at year-end.

The Investment Committee is currently reviewing its long-term asset mix objective and considering other asset classes and new products that could be used to further diversify the investment portfolio, reduce risk and, possibly, increase earnings. All investments of the Fund must meet the criteria established by the *Provincial Finance Act*.

Representatives of the Department of Finance met with the Teachers' Pension Commission in October 1990 to outline long-term asset mix strategies and possible implications the actuarial position of the Teachers' Pension Fund may have on those strategies.

Appendix C summarizes the Fund's assets by investment class and method of management. Generally, equity portfolios are managed externally and fixed income portfolios are managed internally. However, approximately $88 million of the Fund is managed externally on a "balanced fund" basis, i.e., the manager determines the asset mix within parameters established by the Investment Committee.

Approximately 30% of the assets are managed by external managers. These are investment management firms under contract with the Department of Finance to manage a portfolio of assets on behalf of the Fund. As at November 1990, six investment counselling firms have been engaged to manage twelve portfolios – four U.S. equity portfolios, four Canadian equity portfolios, and four Canadian balanced portfolios.

In all twelve portfolios the external investment counsellor enjoys full investment discretion except that:

1) each investment must meet the requirements of the *Provincial Finance Act;*
2) each portfolio can only be invested in the asset classes assigned to that specific portfolio; and
3) shifts in asset mix are restricted to the range specified for each allowable asset class in each portfolio.

IV Return on Investment

Appendix D lists the Fund's return on investment over each of the last ten fiscal years, on both a cost basis and a market value basis. The rates of return calculated using market value fluctuate much more than those based upon cost because the Fund has had a large weighting in bonds, the market value of which are a function of interest rates. Both calculations are listed because some would suggest the rates of return based upon cost are more meaningful for a passively managed fixed income fund.

To compare the Fund's performance with other Canadian pension funds, the rates of return based upon market value must be used. Over the past ten years, this rate was 13.7% per annum. The most widely quoted data base of Canadian pension funds reported a median rate of 13.2% for its funds over the same ten-year period. Over the ten years ended March 31, 1990, the investment portfolio of the Nova Scotia Teachers' Pension Fund outperformed more than half of the pension funds in Canada.

Appendix A

Province of Nova Scotia
Investment Committee Membership
March 31, 1990

Representatives of the Department of Finance

A.G. Manuel, C.A.
Deputy Minister

S.L. Wile, C.A.
Controller

H.W.V. Matthews
Executive Director
Treasury Services

P.M. Brennan, C.F.A.
Director of Investments

R.W. McAloney, C.A., C.I.A.
Manager of Financial Reporting & Analysis
(non-voting member)

Representatives of Major Groups

R.J. Allen
Chairman
Workers' Compensation Board

R.C. Fraser, F.C.A.
Treasurer
Tidal Power Corporation
Nova Scotia Power Corporation
(retired)

B.J. Nicholson
Deputy Minister Education and
Chairman Teachers' Pension Commission

D.T. Tobin, C.A.
Deputy Minister
Management Board and
Civil Service Commission

Other

R.S. Brookfield, F.C.A.
Chairman & Chief Executive Officer
Nova Scotia Municipal Finance Corporation
Past Deputy Minister of Finance

Appendix B

Nova Scotia Teachers' Pension Fund
Asset Mix
March 31, 1990

	Mar. 31/87	Mar. 31/88	Mar. 31/89	Mar. 31/90	Long-term Objective	Median Commitment per SEI Mar. 31/90
Cash and Cash Equivalents	15%	19%	22%	11%	15%	11%
Bonds	81%	72%	62%	66%	50%	43%
Mortgages	1%	0%	0%	0%	0%	0%
Canadian Equities	3%	4%	8%	13%	25%	34%
U.S. Equities	0%	5%	8%	10%	10%	10%
Total	*100%*	*100%*	*100%*	*100%*	*100%*	*N/A*

Appendix C

Nova Scotia Teachers' Pension Fund
Statement of Fund Assets
March 31, 1990
Market Values

	Externally Managed	Internally Managed	Total	Percent of Total	Long-term Objective
Cash and Cash Equivalents	$ 46,121,407	$ 58,067,246	$104,188,653	11%	15%
Bonds	45,925,491	550,892,246	596,817,737	66%	50%
Mortgages	–	3,134,850	3,134,850	0%	0%
Canadian Equities	116,218,818	3,348,977	119,567,795	13%	25%
U.S. Equities	86,606,308	–	86,606,308	10%	10%
Total	*$294,872,024*	*$615,443,319*	*$910,315,343*	*100%*	*100%*
	32%	*68%*			
Excess of book value over market value			3,363,592		
Total assets (book value) per financial statements			*$913,678,935*		

Appendix D

Nova Scotia Teachers' Pension Fund
Return on Investment
March 31, 1990

	Annual Return on Investment	
Year Ended March 31	Cost Basis	Market Value Basis
1981	10.9%	13.8%
1982	11.2%	3.8%
1983	11.2%	37.8%
1984	11.4%	4.4%
1985	11.9%	24.0%
1986	11.9%	25.7%
1987	13.2%	12.5%
1988	11.0%	3.4%
1989	10.8%	9.2%
1990	11.0%	7.5%

	Annualized Return on Investment	
10 Years Ended March 31	Cost Basis	Market Value Basis
1981-1990	11.4%	13.7%

Rates of return for fixed income investments, calculated on a market value basis, to some extent are a function of interest rate levels at the time of such calculation. Lower interest rate levels give rise to higher market values and, conversely, higher interest rate levels to lower market values for bonds. Since 66% of the Fund is invested in bonds, the rates of return, which are based on market values at financial statement date, are affected substantially. As a result, annualized returns on a cost basis may be more meaningful for a passively managed fixed income fund.

Appendix E

Province of Nova Scotia
Nova Scotia Teachers' Pension Fund
Financial Statements
March 31, 1990

Contents

Auditor's Report 20

Balance Sheet 21

Statement of Continuity of Fund 22

Notes to Financial Statements 23

Auditor's Report

To the Chairman and Members of the
Nova Scotia Teachers' Pension Commission; and

To the Minister of Finance

I have examined the balance sheet of the Nova Scotia Teachers' Pension Fund as at March 31, 1990 and the statement of continuity of fund for the year then ended. My examination was made in accordance with generally accepted auditing standards and accordingly, included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Fund as at March 31, 1990 and the continuity of the Fund for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

O.P. Cormier, F.C.A.
Auditor General

Halifax, Nova Scotia
September 28, 1990

Province of Nova Scotia
Nova Scotia Teachers' Pension Fund

Balance Sheet
as at March 31, 1990

Assets

	1990	1989
Cash	$ 3,379,588	$ 418,293
Accounts receivable	6,991,714	4,572,829
Accrued interest receivable	18,650,621	18,652,406
	29,021,923	*23,643,528*
Investments (Note 2)		
Short-term deposits	75,166,730	157,480,465
Bonds, debentures, and coupons	609,978,912	503,359,969
Mortgages	3,134,850	3,747,119
Common and preferred shares	196,376,520	133,389,812
	884,657,012	*797,977,365*
	$913,678,935	*$ 821,620,893*

Liabilities and Fund Balance

Accounts payable	$ 6,816,904	$ 6,326,082
Fund balance	906,862,031	815,294,811
	$913,678,935	*$ 821,620,893*

Actuarial Valuation (Note 5)

Approved

Minister of Finance

Province of Nova Scotia
Nova Scotia Teachers' Pension Fund

Statement of Continuity of Fund for the Year Ended March 31, 1990

		1990	1989
	Balance, beginning of year	$815,294,811	$732,863,795
Add:			
	Teachers' contributions	33,597,095	31,727,521
	Government contributions	33,597,095	31,727,521
	Purchase of prior service	2,741,132	1,505,347
	Transfers from other pension funds	2,795,954	1,019,521
	Income earned on investments	85,093,088	76,736,637
	Amortization of discount and premium on investments	999,722	869,257
	Gain on sale of investments (Note 3)	3,596,476	2,051,317
		162,420,562	*145,637,121*
Deduct:			
	Expenses (Note 4)	1,211,613	976,595
	Pensions paid	67,051,591	60,239,323
	Refund of contributions	1,332,433	1,036,646
	Transfers to other pension funds	1,257,705	953,541
		70,853,342	*63,206,105*
Balance, end of year		*$906,862,031*	*$815,294,811*

Notes to Financial Statements
March 31, 1990

1. Authority

Teachers in the Province are entitled to receive pension benefits pursuant to the provisions of a plan established under the Teachers' Pension Act. The operation of the plan is conducted within the Teachers' Pension Fund to which teacher and employer matching contributions and investment income are credited, and payments to pensioners and terminating teachers are charged. The Teachers' Pension Fund is invested in federal, provincial, municipal and corporate securities and mortgages eligible for investment under the *Provincial Finance Act*.

2. Valuation of Investments

Short-term deposits are valued at their cost of $75,166,730 at March 31, 1990 (1989, $157,480,465).

Bonds, debentures and coupons of $609,978,912 (1989, $503,359,969) are valued at cost adjusted for the amortization of discounts and premiums over the life of the related security. The face value and the market value of these bonds, debentures and coupons as at March 31, 1990, were $630,344,250 (1989, $523,087,500) and $596,817,737 (1989, $520,077,762) respectively. Generally, investments in bonds and debentures are made with the intention to retain them until maturity at which time they are redeemed for their face value, unless there is an opportunity to exchange or dispose of the bonds and debentures to obtain a higher yield.

Mortgages of $3,134,850 (1989, $3,747,119) are valued at their cost less principal repayments.

Common and preferred shares are valued at a cost of $196,376,520 at March 31, 1990 (1989, $133,389,812). The market value of these equity investments at that date was $206,174,103 (1989, $139,706,472).

3. Gains and Losses on Investments

Gains and losses on bonds and debentures exchanged to obtain a higher yield, as well as gains and losses on disposals of common and preferred shares, are recognized in the year of disposition.

4. Expenses

The Fund is charged with the expenses of the Teachers' Pension Commission and expenses incurred on behalf of the Fund by the Investments and Treasury Service Division of the Department of Finance.

	1990	1989
Salaries	$ 374,681	$325,923
Supplies and services	113,603	91,459
Professional and special services	584,592	385,474
Pension administration system	97,472	141,732
Travel	17,097	19,358
Other	24,168	12,649
	$1,211,613	*$976,595*

5. Actuarial Valuation

Actuarial valuations of the Teachers' Pension Fund are required every three years by the Teachers' Pension Act, and provide an estimate of fund liabilities at a point in time, calculated on a basis of various assumptions with respect to future pension plan costs and rates of return on investments. The latest report on the actuarial valuation of the Teachers' Pension Fund was dated January, 1989, and was based on information as of July 31, 1988.

The actuarial valuation projects liabilities for each member on the basis of service earned to date and the projected average salaries at the date of retirement. The actuarial valuation at July 31, 1988, includes assumptions on inflation, rates of return on investments, and an allowance for salary increases based upon service and promotion, and increases for non-promotional reasons. The actuarial valuation indicates that at July 31, 1988, the Fund had estimated actuarial liabilities with a present value of $1,613,444,000, assets of $768,061,000, and an estimated unfunded actuarial deficiency of $845,383,000.